

What is claimed is:

1. A disc drive assembly, comprising:
- a base deck;
 - a spindle motor mounted to the base deck;
 - a disc mounted to the spindle motor for rotation about a vertical axis, the disc
 - 5 having an inner radius and an outer radius;
 - an actuator assembly mounted to the base deck adjacent the disc and
 - controllably rotatable with respect to the disc;
 - a snubber adjacent the disc, the snubber comprising:
 - a body portion rigidly affixed with respect to the vertical axis of the
 - 10 disc; and
 - snubber arms connected to the body portion, the snubber arms
 - extending from the body portion towards the disc and above and
 - below the elevation of the disc, each snubber arm having a distal
 - end located at a position adjacent the disc between the inner and
 - 15 the outer radii of the disc and towards the outer radius of the
 - disc, wherein the heights of the snubber arms limit deflection of
 - the disc at the outer radius of the disc as a result of mechanical
 - shock forces applied to the disc drive assembly, minimizing
 - damage to the disc assembly.

2. The disc drive assembly of claim 1, wherein the snubber is further characterized as cylindrically-shaped, wherein the body portion includes a central hole through which a fastener extends to secure the body portion to the base deck and wherein the snubber arms extend circumferentially about the body portion.

3. The disc drive assembly of claim 1 wherein the snubber is further characterized as L-shaped, wherein the body portion comprises a vertical portion and a horizontal portion, the horizontal portion including a hole through which a fastener extends to secure the body portion to the base deck and wherein the snubber arms
5 extend from the vertical portion.

4. The disc drive assembly of claim 1, wherein the base deck comprises a disc shroud extending from the base deck proximate to a portion of the outer radius of the disc, and wherein the snubber is mounted to an end of the shroud, the snubber characterized as wrapping around the end of the shroud and comprising fasteners for
5 fastening the snubber to the shroud and to the base deck.

5. The disc drive assembly of claim 1, wherein the actuator assembly includes actuator arms that extend above and below the disc, and wherein the snubber is integrally formed with the actuator assembly so that the snubber arms are adjacent the actuator arms.

6. The disc assembly of claim 5, wherein the snubber is mounted to the actuator assembly by way of a fastener.

7. The disc drive assembly of claim 5, wherein the snubber is characterized as an over-molded snubber formed from an over-molding process wherein material is deposited upon the actuator arms in selected locations defining the snubber.

8. The disc drive assembly of claim 5, wherein the snubber comprises pins inserted through corresponding holes in the actuator arms.

9. The disc drive assembly of claim 5, further comprising a flex circuit assembly connected to the actuator assembly, and wherein the snubber is characterized as comprising flex extensions adjacent to the actuator arms, the flex extensions extending from the flex circuit assembly.

10. A disc drive assembly, comprising:

a base deck;

a spindle motor mounted to the base deck;

a disc mounted to the spindle motor for rotation about a vertical axis, the disc

5 having an inner radius and an outer radius;

a snubber adjacent the disc, the snubber comprising:

a body portion mounted to the base deck; and

snubber arms connected to the body portion, the snubber arms

10 extending from the body portion towards the disc and above and
below the elevation of the disc, each snubber arm having a distal
end located at a position adjacent the disc between the inner and
the outer radii of the disc and towards the outer radius of the
disc, wherein the heights of the snubber arms limit deflection of
the disc at the outer radius of the disc as a result of mechanical
15 shock forces supplied to the disc drive assembly.

11. The disc drive assembly of claim 10, wherein the snubber is further
characterized as cylindrically-shaped, wherein the body portion includes a central hole
through which a fastener extends to secure the body portion to the base deck and
wherein the snubber arms extend circumferentially about at least a portion of the body
5 portion.

12. The disc drive assembly of claim 10, wherein the snubber is further characterized as L-shaped, wherein the body portion comprises a vertical portion and a horizontal portion, the horizontal portion including a hole through which a fastener extends to secure the body portion to the base deck and wherein the snubber arms extend from the vertical portion.

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13. A disc drive assembly, comprising:

a base deck;

a spindle motor mounted to the base deck;

a disc mounted to the spindle motor for rotation about a vertical axis, the disc

5 having an inner radius and an outer radius;

an actuator assembly mounted to the base deck adjacent the disc and

controllably rotatable with respect to the disc, the actuator assembly
including:

actuator arms extending radially towards the disc and located above and
10 below the disc;

limiting means, adjacent the actuator arms, for limiting the vertical

deflection of the disc from a mechanical shock to the disc drive,

the limiting means extending above and below the elevation of

the disc between the inner and the outer radii of the disc and

15 towards the outer radius of the disc, the limiting means having a

vertical dimension greater than the vertical dimension of the

actuator arms.

14. The disc drive assembly of claim 13, wherein the limiting means is
mounted to the actuator assembly by way of a fastener.

15 ~~The disc drive assembly of claim 13, wherein the limiting means is~~

formed from a process comprising the steps of depositing material over the actuator arms.

16. The disc drive assembly of claim 13, wherein the limiting means comprises pins inserted through corresponding holes in the actuator arms.

17. The disc drive assembly of claim 13, further comprising a flex circuit assembly connected to the actuator assembly, and wherein the limiting means is characterized as comprising flex extensions adjacent to the actuator arms, the flex extensions extending from the flex circuit assembly.

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